

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figures 6 to 15.

These sheets, which include Figures 6 to 15, replace the original sheets including those same Figures.

REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1, 4-5, 7-8, 10 and 53-64 are pending, with claim 1 amended by the present amendment. Claim 1 is independent.

In the Official Action, claims 1, 4-6, 8-10 and 53 (*sic*) were rejected under 35 U.S.C. § 103(a) as being obvious in view of Toshiki (JP 223741) and Huang (U.S. Patent No. 6,693,352); claims 5 and 10 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Toshiki, Huang and Kim (KR 226831); claim 7 was rejected under 35 U.S.C. § 103(a) as being obvious in view Toshiki, Huang and Uemura (U.S. Patent Pub. No. 2003/0107053); claim 8 was rejected under 35 U.S.C. § 103(a) as being obvious in view of Toshiki, Huang and Nakao (U.S. Patent No. 5,670,800); claim 54 was rejected under 35 U.S.C. § 103(a) as being obvious in view of Toshiki, Huang, Nakao and Williams (U.S. Patent No. 5,045,408). Claims 55-57 were indicated as containing allowable subject matter.

Applicant acknowledges with appreciation the indication of allowable subject matter.

Applicant notes that paragraph 4 of the Official Action appears to misidentify the claims that are rejected in view of Toshiki and Huang. In view of the contents of paragraph 4, Applicant assumes only claims 1, 4, 6, 9 and 53 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Toshiki and Huang, while claims 8 and 10 are addressed elsewhere in the Official Action.

Applicant acknowledges with appreciation the telephone discussion between the Examiner and Applicant's representative on May 12, 2010. During the interview, claim 1 of

Applicant's amendment of April 19, 2010 was compared to Toshiki. The Examiner argued that Toshiki's n-InGa_N layer 5 is a metal layer because Indium is a metal. The Examiner encouraged Applicant to specifically amend this feature to clarify that the metal layer is a substantially pure metal layer. The Examiner questioned where the added features of "an active layer on a first conductive layer" are supported in the specification. The Examiner also reminded Applicant that all features recited in the claims should be shown in the drawings.

Claim 1 is amended as suggested by the Examiner. Figs. 6-15 are amended as requested by the Examiner. The specification is amended to add indicia. Support for this amendment is found in Applicant's originally filed specification.¹ No new matter is added.

Briefly recapitulating, amended claim 1 is directed to:

A light emitting device, comprising:
a first conductive semiconductor layer;
an active layer formed on the first conductive semiconductor layer;
a second conductive semiconductor layer formed on the active layer;
a high concentration GaN-based semiconductor layer formed on the second conductive semiconductor layer;
a first metal-Ga compound layer formed on the high concentration GaN-based semiconductor layer;
a first metal layer formed on the first metal-Ga compound layer, the first metal layer being a substantially pure metal layer;
a third metal-Al compound layer formed on the first metal layer; and
a conductive oxidation preventive layer formed on the third metal-Al compound layer.

Fig. 1 of Toshiki shows a structure having the following sequence of layers: a p⁺ type GaN layer 7 on a p type GaAlN layer 6 on a n type InGa_N layer 5 on a n type GaAlN layer 4 on a n⁺ type GaN layer 3 on GaN buffer layer 2 on substrate 1.

¹ Specification, paragraphs [0006] and [0210].

However, as acknowledged during the interview, Toshiki's n-InGaN layer 5 is not a substantially pure metal layer. Because Toshiki does not disclose or suggest Applicant's metal layer, Toshiki does not disclose or suggest Applicant's claimed sequence of layers.

Applicant has considered the remaining applied references and submits these references do not cure the deficiencies of Toshiki. As none of the cited art, individually or in combination, disclose or suggest at least the above-noted features of independent claim 1, Applicant submits the inventions defined by claim 1, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.

MPEP 2141 notes that prior art is not limited just to the references being applied, but includes the understanding of one of ordinary skill in the art. MPEP 2141 further notes that the prior art reference (or references when combined) need not teach or suggest all the claim limitations. However, an obviousness-type rejection must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. MPEP 2141 goes on to list exemplary rationales that may support a conclusion of obviousness. However, Applicant submits that the Official Action and the applied references present no objective evidence that would support an obviousness-type rejection of Applicant's amended claims based on one of these exemplary rationales.

CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael E. Monaco, Reg. No. 52,041, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

By 

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